

Appl. No. 10/821,968
Amdt. dated July 26, 2006
Reply to Office action of May 03, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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Claim 1 (currently amended): A keyboard controller, comprising;

a computer host interface receiving multiple signals;

a command filtering circuitry coupled between the computer host interface and a
pure hardware circuitry and also coupled between the computer host interface
10 and a micro-controller unit, the command filtering circuitry parsing the said
multiple signals and transmitting data and standard commands then processing
the signals to the pure hardware circuitry and transmitting predetermined
commands requiring more operations than standard commands to the or a
micro-controller unit; and

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an interface circuitry coupled to the pure hardware circuitry and to the
micro-controller unit processing the received signals;

~~wherein said keyboard controller can parse multiple signals. Then, it processes the~~
~~received signals to the said pure hardware circuitry or to the said~~
micro-controller unit for achieving flexibility and extension ability.

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Claim 2 (currently amended): The keyboard controller according to claim 1, wherein the multiple signals of the said keyboard controller can be multiple data or commands.

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Claim 3 (currently amended): The keyboard controller according to claim 1, wherein the interface circuitry of the said keyboard controller can be 64h or 60h of input/output ports.

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Claim 4 (currently amended): The keyboard controller according to claim 1, wherein the command filtering circuitry of the said keyboard controller ~~can have~~ comprises multiple controlled switches, each kind of data or command corresponding to one of the multiple switches, a status of each switch determining whether the corresponding
5 kind of data or command is transmitted to the pure hardware circuitry or to the micro-controller unit. ~~It uses different switches to process signal analysis and parsing works.~~

Claim 5 (currently amended): The keyboard controller according to claim 1, wherein the
10 micro-controller unit of the said keyboard controller can be a firmware.

Claim 6 (currently amended): A method for controlling a keyboard controller comprising the steps of:
receiving the signals of the ~~an~~ assigned PS/2 controller from the ~~a~~ computer host to
15 ~~the by~~ a host interface of the said keyboard controller[.];
Then, transferring the signals to the ~~a~~ command filtering circuitry of the keyboard controller;
the command filtering circuitry determining whether the signal comprises data, a standard command, or a predetermined command requiring additional
20 operations;
if the command filtering circuitry determines that the signal comprises data or a standard command, transmitting the signal to a pure hardware circuitry for processing;
if the command filtering circuitry determines that the signal comprises the
25 predetermined command, transmitting the signal to a micro-controller unit for processing;
after the pure hardware circuitry or the micro-controller unit processes the signal, transmitting the processed signal to an interface circuitry ; and

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the interface circuitry transmitting the processed signal to the assigned PS/2 controller according to a command of the computer host.

~~persing the signals of the host interface.~~

~~If the signal is a standard command, the signal would be sent to the pure hardware circuitry.~~

~~Otherwise, the signal would be sent to the micro-controller unit; sending the processed signals to the interface circuitry after processing the signal by the pure hardware circuitry and the micro-controller unit; and~~

~~sending the signal to the PS/2 controller according to the command of the computer host by the said interface circuitry. The said keyboard controller using a command filter circuit parses the signal. Then, the signal would be sent to the said pure hardware circuitry or to the said micro-controller unit for achieving a fast processing speed in between a computer host and a PS/2 controller.~~

15 Claim 7 (currently amended): A method for controlling a keyboard controller comprising the steps of:

receiving a command from a host computer by a PS/2 controller to return a signal to the keyboard controller;

if the signal to be returned is a standard command, the PS/2 controller transmitting the signal to be returned to a pure hardware circuitry;

if the signal to be returned is a predetermined command requiring additional operations, the PS/2 controller transmitting the signal to be returned to a micro-controller unit;

transmitting the signal to be returned from the pure hardware circuitry or from the micro-controller unit to a command filtering circuitry for processing; and

transmitting the processed signal to be returned from the command filtering circuitry to the host computer via a host interface.

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~~returning the signal to the keyboard controller while a computer ordering a PS/2 controller to return the signal by the PS/2 controller.~~

~~When the returned signal is standard command, the signal would be sent to the pure hardware computer circuitry.~~

5 ~~Otherwise, the signal would be sent to the micro-controller unit;~~

~~and sending the signal to the command filtering circuitry for processing analysis.~~

~~Then, sending the signals to the host interface.~~

~~The host interface receives the performed commands from the command of PS/2 controller for processing, and the keyboard controller connects with the~~

10 ~~computer host and the PS/2 controller for achieving a fast processing response.~~